

# NASA tests unmanned planes at high altitudes

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EDWARDS AIR FORCE BASE — NASA officials at the Dryden Flight Research Center have announced the successful flight of Altus 2, an unmanned aircraft, at altitudes over 40,000 feet.

According to NASA, it's important to develop the Altus aircraft to fly at such high altitudes because it keeps them out of the way, above commercial flight paths. Commercial planes generally fly at altitudes of 37,000 feet to 40,000 feet.

The Naval Postgraduate School in Monterey sponsored the tests at the NASA/Dryden Flight Research Center earlier this month. For the first two

flights, the Altus was flown at 20,000 feet to see how well it took to the sky.

Once the craft proved itself, it was sent up to altitudes of 41,600 feet and 43,500 feet, carrying 300 pounds of simulated payload in the nose.

Eventually, NASA expects to use Altus aircraft, along with other unpiloted aircraft such as the Perseus and another model known simply as Demonstrator 2, to conduct science experiments in long, slow flights at high altitudes.

When used for conducting experiments, Altus aircraft will fly at 15 mph to 20 mph, if they use a solar-powered engine, and they will fly between 55 mph and 78 mph if they are equipped with a gas-powered engine.

A NASA spokesman said it's important to develop aircraft that can fly slowly at high altitudes because slow speeds don't affect the accuracy of data as much as high-speed flying. At high speeds, jets get over-heated in the sensors, and that can contaminate the results of any data-gathering projects.

Now that Altus 2 has proven it can sustain a flight over 40,000 feet, it will be sent back to the Sandia National Laboratories in Oklahoma to fly more science missions in September.

Next month's flights will continue research on the effect of atmospheric aerosols, water vapor and clouds on global climate change, said Will Bolton, a deputy technical director of the Atmospheric Radiation Measure-

ment-Unmanned Aerospace Vehicle program for the Sandia labs.

Altus 2 is one of two unmanned Altus aircraft developed by General Atomics Aeronautical Systems in San Diego. The heavily computerized aircraft has a wingspan of about 55 feet and is 22 feet long. It takes off like an aircraft, and is controlled by a pilot in a ground station.

The heavily modified Altus 1 is scheduled to return to Dryden in September to test its performance at altitudes of at least 65,000 feet.

Eventually, NASA wants to develop unpiloted aircraft that can reach altitudes of 100,000 feet for its Environmental Research Aircraft and Sensor Technology program.

*not true -  
reporter misinterpreted  
ERAST aircraft information.*